

Major Activities and Achievements of Project for Improving Research and Technology Transfer Capacity for Nacala Corridor Agriculture Development (ProSAVANA-PI)

1. **Project Purpose** **Appropriate agricultural technology is developed and transferred in Nacala Corridor.**
2. **Project Period** **May, 2011 to November, 2017 (Six and a half (6.5) years)**

Implemented Activities

< **Strengthening research capacity** > **Target : Northeast research center (Nampula) and Northwest research center (Lichinga)**

Facility improvement

- ✓ Repair of existing facilities and equipment, introduction of new research equipment
- ✓ Construction of soil and plant analysis laboratory at Nampula Center
- ✓ Training for research center staff on usage and maintenance of Facilities and equipment



Advice on the improvement of method about managing the agricultural testing site

- ✓ Development of Management Guidelines of research centers

Capacity building of researchers

- ✓ Training on soil and plant analysis, seminar on production and research of cassava (250 researchers participated in total)
- ✓ Seminars and trainings for extension officers, Internal Annual Meeting for Research Achievements and Planning, presentation of achievement at Agricultural Research Meetings in Nacala Corridor, etc

< **Evaluation of Natural resources and socio-economic conditions in target area** >

- ✓ Evaluation of soil and vegetation, collection and analysis of data on meteorology, water resource, and terrain
- ✓ Survey and analysis of socio-economic situation of small scale farmers
- ✓ Evaluation of agricultural production potential, proposal of land use based on the above

< **Development of soil improvement technology and appropriate crop cultivation technology** >

- ✓ Selection of appropriate crops (maize, potato, beans)
- ✓ Verification of soil conservation Technology (minimum tillage, mulching with residue, contour cropping, etc)
- ✓ Verification of fertilization technology
- ✓ Development of manuals

< **Transfer of newly developed Technology to sites** >

- ✓ Information sharing and training for Extension officers and farmers
- ✓ Development of "Decision Support System" for selection of appropriate cropping system



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Major activities and achievements

1. Strengthening of research capacity

- ✓ Extension officers and farmers were invited to Internal Annual Meeting for Research Achievements and Planning, and their opinions and requests regarding agricultural research were collected. As a result, it became possible to prepare research plans which consider/reflect on-site needs.
- ✓ Proposal-based researches were conducted. Researches which are based on farmers' benefits, such as "Nutrition improvement of small scale farmers through vitamin A fortification sweet potato" and "Good varieties selection test of kidney bean with farmers participation" were conducted. Through these researches, yield of the crops increased.

2. Knowledge sharing with extension officers and farmers

- ✓ Total 1,397 people (393 extension officers and 1,004 farmers) participated in the trainings for extension officers and farmers.

3. Effect of developed technologies

- ✓ Technologies which were developed in the Project had positive effect as indicated below.

Technology	Effect			
Crop residue incorporation and mulching	Maize yield	2.4t/ha	→	4.5t/ha (Nampula research center)
		1.0t/ha	→	1.7t/ha (Muriaze branch)
	Soy bean yield	0.6t/ha	→	0.8t/ha (Nampula research center)
		0.3t/ha	→	0.45t/ha (Muriaze branch)
Minimum tillage	40-91% decrease of soil erosion Reduction of production cost and labor Increase of net income by 500-3,000MZN/ha			
Mulching with crop residue	50-95% decrease of soil erosion Mitigation of drought effect Increase of net income by 1,500-4,000MZN/ha			
Maize- Soybean Intercropping	Increase of Maize yield Mitigation of drought effect 20-50% increase of Land Equivalent Ratio (LER) (Higher yield compared with mono-cropping)			
Maize-Soybean crop rotation	54-49% increase of Maize yield			

(MZN: Mozambican currency)